



# Sunnyslope County Water District

## Assistant/Associate Engineer

### Job Description

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#### DEFINITION

Under general supervision and/or direction from the General Manager, performs professional level engineering duties in support of the District's engineering services and activities; prepares engineering reports, plans and specifications; reviews plans, designs and specifications of assigned projects and recommends changes for compliance; performs field inspection of water/wastewater facilities and responds to questions and inquiries from the general public, developers, contractors, engineering professionals, and District staff regarding engineering and development projects. This position also performs related work as required. This is an exempt position and employment is considered "at will."

#### SUPERVISION RECEIVED AND EXERCISED

Receives general supervision and/or direction from and reports to the General Manager. May provide direction and general supervision to District maintenance staff engaged in various activities when assigned.

#### DISTINGUISHING CHARACTERISTICS

**Assistant Engineer:** This is the entry level class in the professional engineer series. Positions at this level are not expected to function with the same amount of program knowledge or skill level as positions allocated to the Associate Civil Engineer level and exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. Advancement to the "Associate" level is based on demonstrated proficiency in performing the assigned functions, obtaining registration as a Professional Engineer, and is at the discretion of the General Manager.

**Associate Civil Engineer:** This is the full journey level class in the professional Engineer series. Positions at this level are distinguished from the Assistant Engineer level by the performance of the full range of duties as assigned, working independently, applying well developed engineering knowledge, exercising judgment and initiative, and the possession of Professional Engineering License in the State of California as a Civil Engineer or closely related field of engineering when approved by the General Manager. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Work is normally reviewed only on completion and for overall results. Positions in this class series are flexibly staffed and positions at the Associate Civil Engineer level may be filled by advancement from the Assistant Engineer

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level.

### EXAMPLES OF DUTIES

- Performs professional level engineering duties in support of the District's engineering services and activities including design and construction of water production, treatment and distribution, wastewater treatment and collection, and other hydraulic projects.
- Reviews plans and specifications for a variety of development and/or capital improvement projects; checks improvement plans for compliance with District's design criteria; modifies and/or corrects development plans; consults with other departments, contractors, consultants, and the general public regarding project plans and documentation.
- Prepares routine permits and work orders and recommends updates for maps.
- Assists in overseeing construction inspection; reviews and approves inspection reports as necessary.
- Assists higher level staff in preparing and administering assigned contracts.
- Prepares and develops engineering reports, designs, plans, and specifications; prepares engineering economic analysis of planned facilities; develops engineering drawings, construction plans, specifications, contract documents, bid documents, calculations, and cost estimates for proposed projects; researches design requirements; prepares estimates of time and material costs.
- Use AUTOCAD proficiently in performance of duties.
- Prepares water use demand projections.
- Analyzes distribution system pressure and water quality utilizing a computer model of the District's distribution piping system.
- Assists in the preparation of the District's Water System Master Plan and Capital Improvement Program.
- Coordinates engineering activities and provides responsible advice and counsel to the General Manager and other District Staff on a variety of engineering issues.
- Provides information, explains projects and procedures, interprets codes, and coordinates construction activities with outside agencies, contractors, consultants, committees and others.
- Prepares a variety of reports including progress reports, proposals and engineering activity reports.

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- Operates, maintains, and updates the Geographical Information System (GIS) including all databases, tables, viewers, and hardware and software.
  - Responds to technical customer service issues in person or on the telephone.
  - Represents the District with regulatory groups and business organizations; participates in community and professional groups and committees; acts as District liaison on various inter-agency coordination projects.
  - Works as technical liaison with developers, consultant engineers and other agency representatives on private and public development projects, subdivisions, systems design, assessment Districts and other related projects.
  - As assigned, supervises, oversees and participates in construction project administration; assists in overseeing engineering plan and specification development, and ensures compliance with design specifications, codes, and District and other regulatory standards; develops, reviews and approves projects schedules and budget.
  - Establishes and maintains an effective working relationship with City and County agencies, utility companies and the general public.
  - Writes reports, agreements, and Memorandums for review by the General Manager or other managers. Proficient in the use of Microsoft WORD and EXCEL.
  - Performs related duties as required.

### **QUALIFICATIONS DESIRED**

#### **Knowledge, Skill, and Ability to Perform:**

- Principles and practices of water utility operations and maintenance including: water supply, treatment, distribution, facilities equipment and maintenance, with knowledge of public health issues and regulations.
- Principles and practices of standard wastewater utility operations and maintenance including: wastewater collection, treatment, disposal, and reclamation systems, with knowledge of impacts related to public health and water quality.
- Basic operations, services, and activities of an engineering and construction program.
- Principles and practices of civil engineering with particular emphasis on the planning, design, and construction of water production, treatment, and distribution, and other hydraulic projects.
- Principles and practices of civil engineering with particular emphasis on the planning, design, and construction of wastewater treatment and collection projects.

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- Basic principles and practices of project management and administration.
  - Basic methods and techniques of contract negotiations and administration.
  - Basic principles and practices of project budget preparation and control.
  - Methods, materials, and techniques used in civil engineering projects including those used in the design and construction of development projects.
  - Methods and techniques of engineering plan review and analysis.
  - Basic principles and practices of water supply development, chemical and biological aspects of water pollution and local water problems, including their relationship to state and regional plans.
  - Basic methods and techniques of conducting site and field investigation.
  - Basic drafting methods, techniques, and equipment including those used in computer aided drafting using AUTOCAD.
  - Knowledge and understanding of engineering maps and records.
  - Recent developments, current literature, and sources of information related to innovations and trends in civil engineering design and development.
  - Principles and practices of business correspondence and technical report preparation.
  - Modern office procedures, methods, and equipment including computers and supporting word processing, spreadsheet applications, databases, and specialized engineering software programs such as Microsoft WORD, EXCEL, etc.
  - Safety hazards and Occupational health and safety standards.
  - Groundwater basin management principles and practices.
  - Basic methods and techniques of geographical information systems.
  - Principles and practices of the economics of water resources planning.
  - Perform professional engineering duties involved in the design, development, and construction management of a variety of construction/capital improvement projects.
  - Prepare, review, interpret, analyze, and modify engineering plans, drawings, specifications, contract documents, and engineering reports for conformance to professional standards and approved budgets.
  - Collect, assimilate, and evaluate data and prepare recommendations related to civil engineering projects.

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- Perform engineering computations and calculations.
  - Prepare bid documents, contract documents, specifications, cost estimates, and engineering drawings.
  - Inspect public works projects for conformance with plans and specifications.
  - Prepare clear and concise administrative and technical reports.
  - Interpret, apply, and ensure compliance with pertinent federal, state, and local laws, codes, and regulations.
  - Respond to questions and inquiries from a variety of sources regarding engineering and development projects.
  - Research, review, update, and revise existing ordinances, policies, and design standards. Coordinate activities with internal and external agencies and committees.
  - Use and care for engineering, surveying, and drafting instruments and equipment.
  - Perform water distribution system and water quality modeling using computer hydraulic models.
  - Analyze data and information using established criteria, in order to determine consequences and to identify and select alternatives.
  - Compare, count, differentiate, measure, copy, record and transcribe data and information.
  - Persuade, convince, and/or train others, including the act in a lead worker capacity.
  - Advise and interpret how to apply policies, procedures, and standards to specific situations.
  - Utilize a variety of advisory and design data and information such as billing statements, budgets, cost estimates, long-range plans, contracts, requests for proposals, engineering reports, designs, project status reports, construction specifications, regulatory manuals, code manuals, engineering manuals and non-routine correspondence.
  - Use functional reasoning and apply rational judgment in performing diversified work activities.
  - Exercise the judgment, decisiveness, and creativity required in situations involving the evaluation of information against sensory and/or judgmental criteria, as opposed to criteria that are clearly measurable.
  - Operate equipment and machinery requiring complex and precise adjustments, such as drafting instruments, survey equipment, computer keyboard/terminal and telephone.

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- Adapt to changing technologies and learn functionality of new equipment and systems.
  - Communicate effectively orally and in writing with District Board, District personnel, consulting engineers, contractors, attorneys, and customers.
  - Write reports, Memorandums, agreements.
  - Establish and maintain effective working relationships with those contacted in the course of work.

### **EDUCATION AND EXPERIENCE GUIDELINES**

#### **Assistant Engineer**

##### **Education/Training:**

Bachelor's degree from an accredited college or university with major course work in civil engineering or a related field.

##### **Experience:**

One year of increasingly responsible professional water utility engineering experience is desirable.

##### **License or Certificate:**

Possession of an Engineer-In-Training Certificate.  
Possession of an appropriate, valid driver's license.

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#### **Associate Engineer**

##### **Education/Training:**

Bachelor's degree from an accredited college or university with major course work in civil engineering or a related field.

##### **Experience:**

Two years of responsible experience performing duties comparable to an Assistant Engineer.

##### **License or Certificate:**

Possession of a valid California Certificate of Registration as a Professional Civil Engineer.  
Possession of an appropriate, valid driver's license.

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California Department of Health Services Treatment Operator Certification, a Distribution Operator Certification, and Wastewater Treatment Plant Operator Certification are highly desirable but not required.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting, to navigate and traverse District development and construction sites while performing inspections, operate a motor vehicle, vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups and over the telephone.

Must be willing to work outside in a variety of weather and be available for scheduled “on-call” or emergency work.

Must be able to physically carry up to 50 lbs of survey, construction, and other related testing equipment.

Adopted: November 13, 2013

Revised: April 28, 2023